

139870

## SEARCH REQUEST FORM Scientific and Technical Information Center - EIC2800

Rev. 1/15/2004

This is an experimental format. Please give your comments to Jeff Harrison, JEP-4B68, 272-2811.

Date 11/29/04 Serial # 101634917 Priority Application Date JP 5/16/2003Your Name M. Lewis Examiner # \_\_\_\_\_AU 2872 Phone 272-2838 Room 5A50In what format would you like your results? Paper is the default. ☒ PAPER ☐ DISK ☐ EMAIL

If submitting more than one search, please prioritize in order of need.

The EIC searcher normally will contact you before beginning a prior art search. If you would like to sit with a searcher for an interactive search, please notify one of the searchers.

Where have you searched so far on this case?

Circle: ☒ USPT ☐ DWPI ☐ EPO Abs ☐ JPO Abs ☐ IBM TDB

Other: \_\_\_\_\_

What relevant art have you found so far? Please attach pertinent citations or Information Disclosure Statements. Related 6555851 10634917MORIZUKA 10831130 10806397

What types of references would you like? Please checkmark:

Primary Refs \_\_\_\_\_ Nonpatent Literature \_\_\_\_\_ Other \_\_\_\_\_  
Secondary Refs \_\_\_\_\_ Foreign Patents \_\_\_\_\_  
Teaching Refs \_\_\_\_\_What is the topic, such as the novelty, motivation, utility, or other specific facets defining the desired focus of this search? Please include the concepts, synonyms, keywords, acronyms, registry numbers, definitions, structures, strategies, and anything else that helps to describe the topic. Please attach a copy of the abstract and pertinent claims.Circuit-25Problem: See pages 1-3Solution: 11 1 304- Horizontal Power Fet- Multiple Semiconductor LayersPower Semiconductor Device -- Power ControlPG-PUB 20040227211 257/578 HO12027/082JP 2003-139071. prai, ap. 5/16/2003Saito + Omura + Ohashi KK Toshiba

## Staff Use Only

Searcher: HARRISONSearcher Phone: 22511Searcher Location: STIC-EIC2800, JEP-4B68Date Searcher Picked Up: 12-13-04Date Completed: 12-14-04Searcher Prep/Rev Time: 58Online Time: 46

## Type of Search

Structure (#) \_\_\_\_\_

Bibliographic ☒

Litigation \_\_\_\_\_

Fulltext ☒

Patent Family \_\_\_\_\_

Other \_\_\_\_\_

## Vendor

STN ☒Dialog ☒Questel/Orbit ☒

Lexis-Nexis \_\_\_\_\_

WWW/Internet \_\_\_\_\_

Other \_\_\_\_\_

## CAS/STN FILE 'DPCI' ENTERED AT 14:47:58 ON 13 DEC 2004

L1 6061 S ZHANG/REN  
 L2 7 S KARMALKAR/REN  
 L3 18257 S SWITCH#####/REN  
 L4 0 S L1 AND L2  
 L5 369 S L1 AND L3  
 L6 2 S L2 AND L3  
 L7 85 S L5 AND (POWER##### OR POWER#####/REN)  
 L8 221 S L5 AND (CONTROL##### OR CONTROL#####/REN)  
 L9 58 S L7 AND L8  
 L10 480 S (L1 OR L2 OR L3) AND (THREE OR FOUR OR FIVE OR FIFTH OR FOURTH OR THIRD)  
 L11 3045 S (L1 OR L2 OR L3) AND (THREE OR FOUR OR FIVE OR FIFTH OR FOURTH OR THIRD)/REN  
 L12 2 S L9 AND L10  
 L13 29 S L9 AND L11  
 L14 3 S L2 AND SEMICOND#####  
 L15 87 S L6 OR L7 OR L12 OR L13  
 L16 750 S (H01L027-082/IC OR H01L027-085/IC)  
 L17 0 S L15 AND L16  
 L18 87 S (L5 OR L6 OR L7 OR L8 OR L9 OR L10) AND L15  
 L19 0 S (L11 OR L12 OR L13 OR L14 OR L15) AND L16  
 L20 33 S L6 OR L12 OR (L13 OR L14)  
 L21 89 S L15 OR L20  
 L22 SEL PLU=ON L21 1- PRN : 182 TERMS

## FILE 'HCAPLUS, JAPIO, WPIX' ENTERED AT 14:54:20 ON 13 DEC 2004

L23 272 S L22  
 L24 3 S L23 AND (THIRD OR THREE OR TRIPLE OR TRI)(3A) SEMICONDUCT#####  
 L25 1 S L23 AND (FOURTH OR FOUR)(3A) SEMICONDUCT#####  
 L26 3 S (L24 OR L25)  
 L27 0 S L23 AND MAIN(2W) ELECTRODE  
 L28 1 S L23 AND CONTROL#####(2W) ELECTRODE  
 L29 0 S L23 AND PRIMARY(2W) ELECTRODE  
 L30 1 S L23 AND SEPARAT#####(3A)(ELECTRODE OR CONDUCT##### OR ANODE OR CATHODE)  
 L31 252319 S POWER#####(3A)(SEMICONDUCT##### OR SWITCH##### OR CONTROL#####)  
 L32 17 S L23 AND L31  
 L33 1 S (L28 OR L29 OR L30) NOT L26  
 L34 16 S L32 NOT ((L28 OR L29 OR L30) OR L26)  
 L35 0 S L34 AND HORIZONTAL####  
 L36 0 S L34 AND HEMT  
 L37 0 S L34 AND HIGH ELECTRON  
 L38 0 S L34 AND LAYERS  
 L39 5 S L34 AND PRY=2001  
 L40 0 S L34 AND PRY=2003  
 L41 2 S L34 AND PRY=2002  
 L42 1 S L41 NOT L39  
 L43 50 S (L23 OR L24 OR L25 OR L26 OR L27 OR L28 OR L29 OR L30 OR L31) AND  
 OVERLAP#####(3A)(GATE OR ELECTRODE)  
 L44 50 S L43 NOT (L42 OR L39)  
 L45 50 S L44 NOT L33  
 L46 50 S L45 NOT L26  
 L47 1 S L46 AND SEMICONDUCT#####(3A)(?LAYERED OR ?LAYERS OR FILMS OR SUBLAYERS OR  
 EPILAYERS)  
 L48 1 S L46 AND AVALANCH#####  
 L49 5 S L46 AND BREAK#####  
 L50 0 S L46 AND HORIZONT#####  
 L51 50 S L46 AND POWER#####  
 L52 15 S L46 AND CONTROL#####  
 L53 1 S L46 AND PASSIVAT#####  
 L54 20 S (L47 OR L48 OR L49 OR L50) OR (L52 OR L53)  
 L55 18 S L54 AND (ELECTRODE OR ANODE OR CATHODE)  
 L56 1 S L54 AND (SBT OR HEMT OR SCHOTTKY)  
 L57 7 S L55 AND ELECTRODES  
 L58 7 S L57 NOT L56

Questel-Orbit 12/13/2004  
File : PLUSPAT

SS Results

1	1	(1) ..FAM US20040227211/PN
2	1	/PN US20040227211
3	1	/PN US6555851
4	1821	..INDEX /IC
		H01L-027/082
		H01L-027/085
		H01L-027/086
5	231	4 AND POWER
6	35	5 AND CONTROL+
8	35	4 AND POWER+ AND CONTROL+
11	2146	POWER+ AND CONTROL+ AND SEMICONDUCT+ AND DEVICE+ AND (CONTROL+ 3D POWER+)
12	120	11 AND (THIRD OR THREE OR TRI OR TRIPL!)
14	18	12 AND (CONTROL+ 3D (ELECTRODE+ OR CONDUCT+ OR METAL+))
15	15	12 AND (FOUR OR FOURTH)

Search statement 16

Query/Command : 14 or 15

\*\* SS 16: Results 30

Session finished: 13 DEC 2004 Time 15:21:50